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DOCKETED

IN THE UNITED STATES DISTRICT COURT FOR THE
SOUTHERN DISTRICT OF NEW YORK

Midway Manufacturing Company :
vs. : 24 Civ 1657 CBM
The Magnavox Company : Deposition of William
and : L. Harrison, second day
Sanders Associates, Inc. :

74C1030

IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

The Magnavox Company, et al : Consolidated Actions
vs. : 74 C 1030-
Bally Manufacturing : 74 C 2510
Corporation, et al : 75 C 3153
75 C 3933

Deposition taken pursuant to
subpoena and notice at the office of Sanders Associates,
Spit Brook Road, South Nashua, New Hampshire, on
Wednesday, March 17, 1976, commencing at 11:15

FILED

OCT - 8 1976

ERNEST W. NOLIN & ASSOCIATES
General Stenographic Reporters
369 ELGIN AVE., MANCHESTER, N. H. 03104
TELEPHONE: 623-6906

H. STUART CLARK
UNITED STATES DISTRICT COURT

ORIGINAL

o'clock in the forenoon. I would

ask as a witness at the present: Mr. Donald L. Welsh,
Mr. Edward S. Wright, Esq., and Mr. James T. Williams,
For Midway Manufacturing Company
and Bally Manufacturing
Corporation: and Mr. Louis Etlinger,
For Sanders Associates, Inc., and
Magnavox Company:

Mr. Donald L. Welsh, Esq.

Mr. Edward S. Wright, Esq.

Mr. James T. Williams, Esq.

For Sanders Associates, Inc., and
Magnavox Company:

Mr. Louis Etlinger, Esq.

For Sanders Associates:

Mr. Louis Etlinger, Esq., and
Richard M. Seligman, Esq.

Stenotype Reporter:

Barry G. Nolting, C.S.R. of

the 15th, 1972, at the screen along a horizontal
line, and I will see you've taken up to date as of that
date, and to copy for an exhibit 27, a copy of
that, and I would like to ask you what you did next in your
work on the project, the television game project,
and if you would like to refresh your recollection, t-

he witness: Which exhibits?

Mr. WELSH: 16 and 27. I said that,

by MR. WELSH: WILLIAM L. HARRISON

called as a witness in behalf of Midway Manufacturing Company and Bally Manufacturing Corporation, having been previously sworn, was examined and testified further as follows:

MR. WELSH: I would remind you that you are and will remain under oath during the entire period that your deposition is being taken.

(By MR. WELSH.) THE WITNESS: Yes, sir.
(Interrogatories by Mr. Welsh)

Q. When we adjourned yesterday, I believe that you had been referring to Exhibit 16 and had discussed on page 23 of that exhibit the use of the IG-62 Heath generator to modulate an RF carrier to obtain horizontal bars, or at least division lines. You were working on division of the screen, splitting of the screen, along a horizontal line, and I believe you'd gotten up to page 26 of that exhibit, also to page 13 of Exhibit 23. I now ask if you would please tell us what you did next in your work in connection with the television game project, referring, if needed to refresh your recollection, to these two exhibits. to take some notes and make it easier for MR. WILLIAMS: Which exhibits? due to one versus MR. WELSH: 16 and 23. I said that,

but I think he's been going through and found that that was a little farther beyond the work he had done.

Q. Yes, pg 26. THE WITNESS: I, apparently, tried to incorporate a circuit that would chop the relatively low frequency video signal to improve on the poor low frequency response effect that I was seeing on the aTV display at this time?

Q. (By Mr. Welsh): And how did that poor response manifest itself? Ation of the flow of events, and this

A. As far as I can tell from my notes here, it improved it, minimized it, but did not correct it as such.

Q. What did you see on the screen that you were trying to correct? You worked on that?

A. Where the field split, went from black to white or from white to black, from black to white, the white area would be bright where the changed took place and would be approaching back to black at the bottom of the screen. Transistor-type of oscillator, which was

Q. What did you do next? Similar to the one until now - I.E.

A. Well, at the same time, I guess, I included an operational amplifier to make summing of the sync

Q. And video easier in that I wouldn't have level upsets due to one versus the other.

5 Q. Were you referring to one of the pages of these
11 exhibits? Are these exhibits
A. Yes, page 26, page 13 of Exhibit 23 may not have been
6 Q. Of Exhibit 162 of that particular time. I think it
A. 16, yes, sir, that.
7 Q. As I understand it, you were still working with black
and white at this time? Pierce oscillator?
A. Yes, sir. Exhibit 23, page 12, I don't think is
12 in the right location of the flow of events, and that
particular page is not dated. A diagram of the
8 Q. What leads you to that conclusion? Instruct
A. It has a different summing amplifier.
9 Q. Something you worked on later than the one with
A. As I recall, that would be the case.
9a Q. Will you tell us what you did next?
A. Apparently, in next I was instructed to work on producing
10 a color, color signal. I started by making a field
effect transistor-type of oscillator, which was a
11 A. Pierce oscillator similar to the one used in the I.G.
12 62. I -- that is on page 27 in Exhibit 16, and on page
13 28, apparently, some date irrelevant to this oscillator.
14 Q. Is that work also represented in Exhibit 23 of indi-
15 cated? chromatic scaling with respect to the final

A. Yes, sir.

11 Q. What pages of that exhibit?

A. What is on page 13 of Exhibit 23 may not have been representative of that particular time. I think it is sometime other.

12 Q. Page 13 of Exhibit 23 does relate, however, or does contain a notation of a Pierce oscillator?

A. Yes, sir.

12a Q. And is that a diagram of such an oscillator underneath the notation, or is that a diagram of the oscillator you've been trying to construct?

A, I don't understand.

(Document handed to the witness
by Mr. Welsh.)

13 Q. (By Mr. Welsh.) That's a circuit diagram under the notation "Pierce Oscillator"?

15 A. Yes, sir.

14 Q. Is that a diagram of a Pierce oscillator?

A. I believe so, sir.

15 Q. As I recall the testimony of Mr. Baer with respect
to Exhibit 23, it is possible that some of the
A. undated loose sheets in that exhibit may be out of
order chronologically with respect to the dated

sheets in case that might cause you some confusion at some point. If it is possible to refer to the dated sheets to refresh your recollection without going to the undated ones, perhaps that would be simpler to sort out a further question of mine.

16 A. I next worked on a phaseshifter to give me chroma-phase shift such that I might be able to control the color presented on the screen. Q. Any particular pages of Exhibit 16 and 23 relate to that work? A. result you were trying to
A. Page 23-13, 23-16, 23-18, 13-19.

17 Q. 23-17 does not display a colored area, I think. A. Not the phaseshifter, itself, over the entire area.

18 Q. What happened with respect to the phaseshifter work?
A. It, apparently, yielded me zero to ~~nineteen~~ ^{ninety} degrees of phaseshift, in the chroma signal, which is all I wanted.

5/4/76
WLN.
19 Q. Is that also referred to on pages 28 and 29 of Exhibit 16? That is 23-16, I mean, not 16. A. I'm sorry. I'm a little confused. I'm not sure what you mean.

20 Q. I think you were referring to 29 and 28, also, at the bottom? I could answer that question. A. I started off with the desire to create a zero to 360 degree phaseshifter and I settled, apparently, for

one that would phase shift from zero to ninety degrees at that time, at which point the

21 Q. And you were able to obtain such a phase shift?

A. I will conclude that I did because of the fact that I started to work on a further downstream circuit.

22 Q. And what pages is the downstream circuit found?

A. Page 129, Exhibit 16.

23 Q. By "downstream circuit," what did you mean?

A. The next event.

24 Q. What was the general result you were trying to achieve at this time?

A. That I could display a colored area, I believe, on the screen, that I had control over the color.

25 Q. You mean a discrete area or portion of the entire screen area?

A. I don't recall, exactly, at this time which it was.

26 Q. Were you at this time seeking to provide a split field with two different colors or just finding a way to control changing of the color on the screen?

A. As I recall, I was only trying to produce a field of color, that I could control the hue of.

27 Q. Before going on, at this point I'd like to go back a moment to Exhibits 23-5 and 23-6. I believe yesterday

I had asked you if you knew what could be achieved with the hardware which Mr. Baer had already constructed prior to your going to work on the TV game project, and you, I believe, indicated you didn't remember. Then you started looking at these exhibits and specifically to these two exhibits, 23-5 and 23-6. I believe you stated 23-6 was a circuit diagram of the breadboard that was present when you joined the TV game project. I wonder if by referring to that diagram and Exhibit 23-5 you are able to refresh such your recollection as to what it was possible to accomplish with that breadboard.

A. Apparently, we were able to produce a variable position vertical bar and produce this bar in color which was variable on the C.R.T.?

Q. Is there any indication that that breadboard was capable of producing an image of a spot as distinguished from the bar?

A. You are referring to page 23-6? I mean 23-6?

Q. Yes, the chroma signal first is synchronized to the time

A. Not that I can see at this time. This note I am 16

Q. Now, returning to page 29 of Exhibit 16, I believe you stated that the next thing you were working on was

the downstream circuit for trying to produce a field of colors that you could control, and which you could control the hue. Could you go on, please, as to what happened next? What does that mean in terms of

A. Next I worked on a gate, an orring gate which would pass the chroma sync signal and the variable phase chroma signal. As varied.

31 Q. What page or pages does that work appear on?

A. Page 29, Exhibit 16. It appears on page 13 of Exhibit 23.

32 Q. What was the reason for or result achieved with such an or gate? DR. WELCH: I believe we've

A. Sir, I don't understand the question for lunch.

33 Q. I say, what was the purpose of providing the or gate? What were you seeking in it? What was produced on the screen of the C.R.T.?

(The last question was read back by the reporter.) LUNCH 1:34 P.M.

THE WITNESS: The or gate performs the function of separating the first chroma signal from the chroma signal that is seen during the time off trace on the screen. By having this gate I could have two chroma signals, one used for synchronization of the chroma oscillator in the TV receiver, and the

other signal would be active during the trace time in which the color demodulators would demodulate that coded color.

34 Q. (By Mr. Welsh.) And what does that mean in terms of what the observer sees on the screen?

A. He can see a color that is a different hue as the chroma phase is varied.

35 Q. And that's over the entire screen?

A. As I recall, that would have been over the entire screen.

MR. WELSH: I believe we've reached the noon hour, so let's break for lunch.

(Whereupon, at 12:00 o'clock, noon, a recess for lunch was taken.)

36 Q. And when we came back?

MR. WELSH.

DR. WILSON: AFTER BUNCH 1:30 P.M.

Q. (By Mr. Welsh.) Just before we broke for lunch I believe you were discussing the addition of the or gate discussed on page 29 of Exhibit 16 and also shown on page 13 of Exhibit 23. The general purpose was, or results you were seeking, was changing in

hue of the color on the entire screen as the phase shifter was varied?.

A. As I recall, my indication was

37 Q. Would you now, please, go on to note what happened next in your work on the TV game project without

A. Apparently, I do not recall at this time, but the notes indicate that I added a buffer stage after the phaser shifter, and attempted to obtain zero to 180 degrees of phase shift of the chroma signal.

*5/4/76
WLW*
The notes also indicate that I was able to get one extreme stream of the pot from the blue to the other extreme stream, red, with green in between, with respect to making

38 Q. What page is that indicated on? I mean at that time

A. pages 23 and 24 in Exhibit 16.

39 Q. And that was with the buffer?

40 Q. A. Yes, sir. About circuit diagrams, did you usually

do you offhand in Exhibit 23 any indication of work on that same subject matter? I note that pages 23 and 24 of Exhibit 23 bear the same date as pages 29, 30 and 31 of Exhibit 16?

A. I do not recall at MR. WILLIAMS: Did you say pages 23 and 24 probably would have done it in sections.

41 Q. First, and then on MR. COOKE: No, 24 and 25, and

connected them to **THE WITNESS:** I do not recall what I was doing. However, these sheets, 24 and 25, well, 24, rather, may indicate something I was thinking about in the future; have been true.

41 Q. (By Mr. Welsh.) You went on to page 31 without commenting on page 30. What was indicated on page 30 of Exhibit 16?

A. I do not recall. However, it is indicated to me that that would have been a block diagram of the equipment that was constructed and possibly operating on that date. whether you had by the date it became so.

42 Q. Did you have any practice with respect to making block diagrams or circuit diagrams of equipment that had been constructed? From memory that.

A. I do not recall. with it so far as what I did.

43 Q. And how about circuit diagrams, did you usually prepare complete circuit diagrams of a system before constructing it, or did you do it in parts and then after you constructed it complete the entire diagram of the entire circuitry?

A. I do not recall at this time. However, I think that I probably would have done it in sections.

44 Q. First, and then once you built them together and

connected them together you drew a diagram of the entire circuitry?

A. Probably yes, I think I did or no.

45 Q. Would the same thing have been true of the block diagram? If it does, it's.

A. I do not recall, but I believe that would be a fair statement.

46 Q. I note attached to the back of page 31 of Exhibit 16 is a copy of the drawing -- back of page 31 which has been marked 16-31A. Do you recall from examining that whether you had by the date it bears, May 15, 1967, completed the circuitry depicted there?

A. I do not recall, but I believe that I would have.

47 Q. Can you tell from examining that circuitry what could be accomplished with it so far as what the viewer saw on the TV screen was?

52 A. As I recall, to rather, this schematic indicates to me that you would have had a split field arrangement which was controllable, top and bottom half, proportions, that is, and the white level would have had colors associated with it that would be variable.

53 Q. You say a split field with variable color, top and bottom? Now, in the circuit diagrams, do the two

48 Q. top and bottom diagrams, do the two

55 Q. top and bottom diagrams, do the two

A. I would say just the white area. I believe the black would have blanked any color, but I'm not sure.

49 Q. Now, does the block diagram on page 30 of Exhibit 16 relate to the schematic of Exhibit 16-31A?

A. I believe it does, sir.

50 Q. In other words, they are both of the same system?

A. Yes, sir. I do.

51 Q. I call your attention, also, at this time to page or sheet No. 78 of Exhibit 23 and ask if that has any relation to Exhibit 16-31A? They appear to bear the same date, and it would appear that 16-31A might have been copied from 23-78 and then something added to 23-78a. Do you recall a date on 23-78a?

A. Yes, sir. I recall.

52 Q. Is that a fair characterization? It happened.

A. Yes, sir. It's the development so far as your work is concerned.

53 Q. Is the schematic of Exhibit 23-78 a more complete version of what is in 16-31A and in 16-30?

A. It is more incomplete in that it has signals and notations associated with it in order to identify the individual elements.

54 Q. But the individual elements are the same?

A. Yes, sir. I believe they are the same.

55 Q. Having read the circuit diagrams, do they have any

significance as to representing any particular stage of development of the TV games?

A. I think at this point in time we were, probably, just trying to build a breadboard piece of equipment that we could produce an indication on a TV screen that we remotely had control of the symbol, whatever it may have been. I think the loose

56 Q. Was this circuitry capable of producing a symbol other than a split-field? A. Clear or clearer.

A. I don't believe so. enter in the logbook, Exhibit

57 Q. I see that Mr. Baer signed his name on Exhibit 23-78 on May 15, 1967, (the same date) that appears next to your name. Do you recall his signing that drawing?

A. I do not recall.

58 Q. Could you now go on and tell us what happened next in the TV game development so far as your work was concerned as to what should go into the logic?

A. In particular I believe I stated that these may not be in chronological order, and I believe that I could possibly make a mistake in the exact order of events, if that is true, without going through every page of this book every time I make the next move, which is

59 Q. I understand you're not sure I asked, but there seem

to be some entries in Exhibit 16 which are similar to information on the sheets of Exhibit 23, and then the sheets of Exhibit 23, some of them contain additional material that is not entered in Exhibit 16. What determined what portion of your work went into Exhibit 16 and what portion did not?

A. I do not recall. I think the loose leafs were work sheets, and then I was careful to make the entries in the log, probably, clear or clearer.

60 Q. Did you attempt to enter in the logbook, Exhibit 16, work of a significant nature vs. experimental work or things that did not work? Do you recall if you had that kind of a distinction as to what went into the logbook?, as to the

A. I do not recall.

61 Q. Do you recall any specific instructions that Mr. Baer gave you as to what should go into the logbook, Exhibit 16?

A. I do not recall.

62 Q. So far as chronological order is concerned, the entries in Exhibit 16 are in such order, are they not?

A. I find some data that is dated 17 June attached in this book before 15 June. Should I move it or --

63 Q. Now, I'd like to have it in the same order. How about the entries on the pages, they're all in the proper order, are they not, chronologically? I have no doubt that the even **MR. WILLIAMS**: You mean pages bearing print numbers? Uh printed numbers.

167 MR. WELSH: Yes, the bound pages of **the book** than it may have been done by mistake. Could you now refer **THE WITNESS**: 16 Yes, first of all,

64 Q. **So that even if the sheets of Exhibit 23 may not necessarily be in chronological order, at least the entries in Exhibit 16 are in sheets of Exhibit 16.**

A. Yes, sir, your recollection as to what happened now?

65 Q. So you can be sure then, at least with reference

A. **To Exhibit 16, as to the relative order of occurrence of various events regarding the TV game project?** By voltage.

MR. WILLIAMS: By that you mean

66 Q. **the printed pages of Exhibit 16?**

A. As I recall, I did. MR. WELSH: Yes.

67 Q. What was the result **THE WITNESS**: May I have the question

A. **Again, please? Exhibit 23-16 indicates that with no volts applied to the (The last question was read back by the reporter.) With zero volts, the delay was 11 milliseconds, and **THE WITNESS**: This cannot be perfectly**

sure. However, we tried to keep fairly good notes, so I believe they probably are.

66 Q. (By Mr. Welsh.) Do you have any reason at all to doubt that the events occurred in the order in which they appear on the pages with printed numbers in Exhibit 16? Split screen would have changed page.

A. None other than it may have been done by mistake.

87 Q. Could you now refer to Exhibit 16 or first of all, would you tell us what occurred next in the development, and if you do not recall, would you refer to Exhibit 16 and correspondingly dated sheets of Exhibit 23 to refresh your recollection as to what happened next in the 40 Game project? a 60 resistor.

A. The next step as indicated in Exhibit 23, page 26, was to control the vertical delay multivibrator by voltage. I believe it could.

88 Q. Did you do that? yes or no.

A. As I recall, I did. 60 resistor to the vertical.

89 Q. What was the result?

90 A. The data in Exhibit 23-16 indicates that with minus 6 volts applied to the timing resistor, the delay was 3 milliseconds. With zero volts, the delay was 11 milliseconds, and with plus 9 volts, the delay was

11/3/72

13 milliseconds.

90 Q. Delay of what? My recollection is

A. The output of the delay multivibrator.

91 Q. What effect did that have, if any, upon what was seen on the screen of the television set?

A. The split screen would have changed position as to where the split occurred. Do that suggest?

92 Q. You mean the vertical position of the split?

A. Yes, yes, I have any recollection in that regard.

93 Q. Is the circuitry for doing that shown in Exhibit 23-78 on the job.

A. Exhibit 23-78, the circuitry shows that the time delay was controlled by a variable resistor of the split so that that timer delay could be varied with the circuitry of Exhibit 78?

A. Yes, sir, I believe it could.

95 Q. And what resistor was that on Exhibit 23-78?

A. There's a 100K ohm variable resistor in the vertical delay multivibrator.

96 Q. That's at the left center portion of the exhibit?

A. Yes, sir, about that time.

197 4/25/76 Q. And that resistor was varied to the vertical position to vary
... of the split change position? A. It's familiar to me.

A. I do not recall, but I believe it did.

98 Q. Do you have any recollection of a pumping game played on the circuitry of the TV games?

A. Yes, sir.

99 Q. Who suggested such a game?

A. As I recall, it was Mr. Baerthon.

100 Q. Do you recall when he made that suggestion?

A. No, sir. It was of Exhibit 16 and the other games.

101 Q. Do you have any recollection in that regard at all?

A. It may have been in his previous notes prior to my coming on the job. as to what?

102 Q. Do you recall his suggesting that in connection with your changing the vertical position of the split on the television screen by varying the resistor in the vertical D.M.V.? Seeing the pages, obviously, reflect

A. I do not recall as to the existence of the pages.

103 Q. You have no recollection of that at all?

A. I do not recall talking to him as such. However, I believe it happened ages.

104 Q. At that time? Mr. Baerthon I think you should

A. On top of about that time, I don't know and not as to what it is.

105 Q. What is the basis of your belief?

A. These circuits and diagrams look familiar to me.

106 Q. And you believe that what you put on them at the time
was what actually happened? Proceedin

A. I believe so. answer, and I am asking you

107 Q. Do you have any reason to doubt it? + what you

A. No, sir. as from the entries on the

108 Q. Does it refresh your recollection at all to see
these diagrams and the entries that you made on these
notebook pages of Exhibit 16 and the other loose pages
of Exhibit 16? I am not asking, generally, when
reviewed the pages MR. WILLIAMS: Does it refresh
your recollection as to what was that review refreshes
your recollection as MR. WELSH: As to what appears
on these pages, of course.

MR. WILLIAMS: Well, I wouldn't
say of course, if seeing the pages, obviously, refreshes
your recollection as to the existence of the pages,
it would seem to me to say so.

109 Q. (By Mr. Welsh.) And how about as to the existence
of what is on the pages? particular documents that
I see here. It is MR. WILLIAMS: I think you should
ask him as to specific facts and note as to a whole
general category of documents, if it's been.

110 Q. I don't believe MR. WELSH: He has been answering

every question starting out with the phrase "I do not recall" today, and then is proceeding to make some equivocal answer, and I am asking if reading these pages refreshes your recollection as to what occurred as appears from the entries on the pages. As to the question MR. WILLIAMS: I think you should ask him as to specific facts, not as to everything on each page. That is meant to occurrence of events.

110 Q. (By Mr. Welsh.) I am asking if, generally, having reviewed the pages up to page 32 of Exhibit 16 and other pages of Exhibit 23, has that review refreshed your recollection as to the occurrence of the events indicated on those pages?

111 A. Have you had any difficulty MR. WILLIAMS: Mr. Harrison, if your hesitancy in answering the question is in any way related to an understanding of the question, please don't hesitate to say so. I think it is still each question THE WITNESS: I believe my problem is that I can't recollect particular days as to what I used to do. It is very vague because of the time span.

111 Q. (By Mr. Welsh.) Because of what time span? A. Eight or nine years, or whatever it's been.

112 Q. I don't believe you've answered the question. I do.

110 Q. MR. WILLIAMS: I think he's given
111 an answer to the question.
112 Q. MR. WELSH: He has not stated
113 whether reviewing these pages of Exhibit 16 and 23,
114 that he has reviewed thus far refreshes his recollection
115 as to the occurrence of the events there.

116 Q. THE WITNESS: I am not sure I
117 understand what is meant by "occurrence of events."

118 Q. (By Mr. Welsh.) Well, does it refresh your
119 recollection as to the events indicated as occurring?

120 A. Yes, sir.

121 Q. It does, yes.

122 A. Vaguely, but I guess it does.

123 Q. Have you had any discussions with Mr. Williams
124 regarding giving your testimony here?

125 A. Yes, Williams take?

126 Q. Has he instructed you to be certain that you under-
127 stand each question very carefully?

128 A. 8:30 in the morning. MR. WILLIAMS: I object to the
129 questions calling for information which is protected
130 by the attorney-client privilege.

131 Q. Approximately a half THE WITNESS: I refuse to answer
132 that all. MR. WELSH: I don't believe I heard

counsel give his advice, but --

Did you ever have MR. WILLIAMS? I do advise you not to answer that.

117 Q. (By Mrs. Welsh) When did your discussions with Mr. Williams take place? a break or at the

A. Yesterday, today, and a day approximately a week ago.

118 Q. Any other times? testimony in any regard.

A. I believe one other time a few months ago. I do not recall the date.

119 Q. Was anybody else in attendance during any of those discussions? that discussion take?

A. The first one, yes.

120 Q. Who was present at a discussion with Mr. also, etc., Mr. Anderson occur?

121 Q. How long did that discussion with Mr. Anderson and Mr. Williams take occur for?

A. Approximately one hour.

122 Q. When did you meet with Mr. Williams yesterday?

A. 8:30 in the morning.

123 Q. For how long? met with him approximately a week ago, did you not recall it one meeting?

124 Q. Approximately a half hour? Do you have any recollection of this? when did that take?

A. I don't recall.

125 Q. Did you have more than one meeting with him yesterday?

A. Not that I recall.

126 Q. Did you have any discussions with him regarding your testimony at either a break or at the end of the day?

A. Regarding my testimony?

127 Q. Concerning your testimony in any regard?

A. Yes, sir.

128 Q. When did that occur?

A. At the end of the day.

129 Q. How long did that discussion take?

A. A minute, perhaps.

130 Q. You stated you had a discussion with him, also, today. When did that occur?

A. First thing this morning.

131 Q. How long did that occur for?

A. Fifteen, twenty minutes.

132 Q. That was before your testimony began today?

A. Yes, sir.

133 Q. And when you met with him approximately a week ago, did you have just one meeting?

A. As I recall, sir. The morning. Only at the time?

134 Q. And how long did that take?

251
135 Q. You are named as one of the inventors of United States Patent 3659285 which has been marked -- a copy of which has been marked -- as Exhibit 12, are you not?

252 A. Yes, I see a copy of the patent and the contents of the patent.

253 136 Q. Did any of your discussions with Mr. Williams, include a discussion of the application for reissue of that patent? (Attorney, in effect of litigation, and a

254 f the record.) MR. WILLIAMS: I object to the question as calling for information protected by the attorney-client privilege, and I instruct the witness not to answer the question.

255 THE WITNESS: I refuse to answer

256 137 Q. (By Mr. Welsh.) Have you had any discussions with anyone regarding the applications or application for reissue of that patent No. 3659285?

257 A. No, I have not. MR. WILLIAMS: You mean discussions with other than myself?

258 138 Q. A. I believe so. MR. WELSH: Anyone. Anyone other than you did you have a discussion regarding the reissue of the 365 THE WITNESS: Only ~~at the time I signed the document, that I recall.~~

138 Q. (By Mr. Welsh.) When you say "the document," to what are you referring?

A. The application for reissue.

139 Q. I hand you what has been marked as Exhibit 42, a certified copy of the file wrapper and contents of the application for reissue of the 285 patent, and specifically, four-page document entitled "Declaration, Power of Attorney, and Assent of Assignee," and ask if that is the document or a copy of the document to which you just referred? (Document handed to the witness by Mr. Welsh.) I'm sorry, but I do not recall.

THE WITNESS: Yes, sir, it is.

140 Q. (By Mr. Welsh.) That is your signature that appears on page 4 of that declaration?

A. Yes, sir, he did.

141 Q. And you signed that on -- or did you sign that on April 22, 1974, that date that appears after your signature? calling for signature that is to protect client privilege, and I instruct the

A. I believe I did. client privilege, and I instruct the

142 Q. With whom did you have a discussion regarding the reissue of the 285 patent at the time you signed this document? of counsel.

143 Q. (By Mr. Seligman.) Do you recall anything about t
anyone else? the gist of the discussion with Mr.
A. Not that I recall.

144 Q. Had you discussed the applications for reissue with
anyone else other than Mr. Seligman prior to the time
you signed this document? issue of patent No. 365928
A. MR. WILLIAMS: I think you used
the plural, the applications are?

THE WITNESS: I do not recall, sir.

145 Q. (By Mr. Welsh.) Did you ever discuss it, the
application for reissue, with Mr. Baer? sir, it was done
A. I realize that I may have, but I do not recall, utilized
in the discussion you had with Mr. Seligman at the
time you signed this document did he explain why the
reissue application was being filed? I do not recall
A. I do not recall when it was filed. I do not recall
146 Q. In the discussion you had with Mr. Seligman at the
time you signed this document did he explain why the
reissue application was being filed? I do not recall
A. I do not recall when it was filed. I do not recall
147 Q. Do you recall why he said it was being filed?
A. Yes, sir. MR. WILLIAMS: I object to the
question as calling for information which is protected
by the attorney-client privilege, and I instruct the
witness not to answer.

148 Q. And when you refer to the witness, I will not answer on
the advice of counsel. Is it not, that is,

148 Q. (By Mr. Welsh.) Do you recall anything about the discussion, the gist of the discussion with Mr. Seligman? Answered the question so you best. A. The incident is very vague. 149 Q. Do you now have any belief with respect to the reason why the application for reissue of patent No. 3659285 was filed? A. May I have that back, please? that he referred to the last page of the doc (The last question was read back by the reporter.)
(By Mr. Welsh.) THE WITNESS: Yes, sir, quite was done to clarify that our invention was meant to be utilized with any type of raster scan television display.

150 Q. (By Mr. Welsh.) When did you first acquire that belief, without referring to the declaration? A. I believe I would have on April 24, 1974.

151 Q. You believe you would have? A. Yes, sir, I feel that is a fair statement.

152 Q. Do you recall, specifically, acquiring that belief on that day? determine when as the declaration recited. A. No, recitation or not, of the patent?

153 Q. And, when you referred to the date, that was after referring to the declaration, what it was, that is,

159 Q.

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154 Q. the specific document?

A. I don't understand the question, but

154 Q. When you answered the question do you believe you acquired the belief on April 24, in answering the question you referred to the document, did you not?

A. Yes, sir. Referring to the declaration and the statement, did you not MR. WILLIAMS: I think to be accurate, the record can show that he referred to the last page of the document, only, in answering that question, or did you rely on counsel for Sanjour to

155 Q. (By Mr. Welsh) Prior to that time did you personally have any belief that the original patent No. 3659285 needed clarification? It would have been to

A. No, sir. I would not have been aware. I did not

156 Q. Did it simply not occur to you?

A. That it needed clarification?

157 Q. Yes, sir.

A. Yes, sir, I feel that is a fair statement.

158 Q. Is it also a fair statement that you were relying on counsel to determine whether the application needed clarification or not, or the patent?

A. Yes, sir. with your right to rely on your attorney

159 Q. At the time you signed this declaration for the

application for the reissue patent No. 3659285, did you also rely on counsel as to the truth of various statements that were contained in the declaration and were subscribed to by you?

A. I am not sure I understand the question.

160 Q. You did subscribe to the declaration and the statements therein, did you not?

A. Yes, sir.

161 Q. Did you subscribe to those as being of your own personal knowledge, or did you rely on counsel for Sanders as to the truth of statements which were not within your personal knowledge?

A. I'm sure the statements would have come to my knowledge via counsel or someone, and I believe them to be true.

162 Q. You did believe them to be true?

A. Yes, sir.

163 Q. Did you read the declaration before you signed it?

A. Yes, sir.

164 Q. The declaration states on the first page that you also read the foregoing specifications and claims. Did you read such specifications and claims before signing the declaration?

165 A. I'm sure I did, which you can see on the page.

Q. I'd like to ask you now to read the declaration, and then I'll ask you some further questions.

A. O.K.

166 Q. I'd like to ask you now, please, to go through the declaration and point out to us which statements you had personal knowledge about, and which ones you were informed about by counsel for Sanders as of the time when you signed the declaration.

A. You want me to read the statement that I am referring to now, which is the following:

167 Q. Yes, I think that would be -- you could quote the statement. I'm asking both for statements about which you had personal knowledge, and other statements about which you were informed by counsel for Sanders.

COU-OP: MR. WILLIAMS: Just so the question will be clear, there is also a possibility that the was informed of statements by people other than counsel. You do not mean the question to include all the -- and at this time, I had been informed by Mr. Walker. Mr. Walker believes he can say that he either had personal knowledge or he was informed by counsel for Sanders, and if either one of

statements about which you were informed by someone else, then, please, note that, also,

THE WITNESS: Well, the part that "We declare further that said letters patent 3659285 is partly inoperative by reason of defective specifications. That by reason of said defective specifications the assignee of said letters patent and the exclusive licensee of said letters patent may both fail to gain the full benefit of our invention to which they are entitled. That, in particular, on information and belief the exclusive licensee of said letters patent has attempted to grant licenses under both said letters patent and other United States letters patents relating to similar subject matter to various manufacturers of certain coin-operated television games using the invention of said letters patent 3659285." I was aware that there were coin-operated TV games out that were very similar in their presentation of a game to our invention. I do not recall at this time if I had seen coin-operated TV games in public or if through a discussion with Mr. Baer or Mr. Rusch I was made aware, and that I recall seeing a memo from Mr. Rusch to, I believe,

Mr. Etlinger saying that he had been somewhere and had seen a coin-operated video machine which he thought was an infringement of our patent rights. "That certain ~~etc~~ of said coin-operated television games used as a video display device either a television monitor or television receiver intended to receive broadcast signals with the radio frequency and intermediate frequency portions thereof by-passed or disabled. . That some of the claims of said letters patent 3659285 include the term 'standard television receiver,' specifically, claims 1 and 2, and some of the claims of said letters patent 3659285 include the term 'television receiver,' specifically, claims 5 and 6. The claims which do not recite a television receiver but rather, recite a cathode ray tube, specifically, claims 3, 4, 7, 8, 9, 10, 11 and 12 are inadequate to fully protect our invention, because they are other ways of different scope from the claims that recite a television receiver. That in the context of my invention and the context of the Description thereof in said letters patent 3659285, I have always understood and believed television receiver and standard television receiver to mean any

cathode ray tube display incorporating circuitry for a Raster-type scan inasmuch as such displays are common to both monitors and broadcast television receivers and are, therefore, both reliable and readily available at low cost." I never knew any definition to show a difference between standard television receiver and television receiver. They meant one and the same to me.

168

Q. (By Mr. Welsh.) Now, I believe the question that I asked you was to point out the statements on which you relied as of your own knowledge and the statements on which you were given information by counsel for Sanders or someone else. Are the statements that you have read statements that you were relying on counsel for Sanders?

A. In part. "The exclusive licensee of said letters patent has attempted to grant licenses under both said letters patent." I would not know that other than to hear that from patent attorney, I don't believe.

169 Q. How about the preceding statements in that same paragraph? I believe those were included in the several portion you read, "that certain of said coin-operated

A. I would have learned that from counsel, I believe.

170 Q. All of those statements prior to the next to the last line in that second paragraph on page 1 starting with "The exclusive licensee of said letters patent has attempted to grant licenses"? Do you rely on

A. what does that include, now?

171 Q. Well, you first read a portion, "The exclusive licensee of said letters patent has attempted to grant licenses under both said letters patent and other United States ___" I don't think you read that far, but you did read that next to the last line and the last line, and you said you would have relied on counsel for Sanders for that statement, and then you had also read the first five lines and the first part of the sixth line of that same paragraph, and my question was:

A. Did you also rely on counsel for Sanders for the statements, first five lines in it and the first part of the sixth line, before the comma in that same paragraph? And that was the statement, in that statement.

A. I believe so:

172 Q. And how about the statement starting in the third line after the semi-colon and going down to the seventh line, specifically, that certain of said coin-operated

television games use as a video display device either a television monitor or a television receiver intended to receive broadcast television signals with radio frequency and intermediate frequency portions thereof by-passed or disabled." Did you rely on counsel for Sanders for that?

A. I do not recall.

173 Q. I believe you've stated that you did learn that there were some coin-operated games similar to what you considered your invention. Did you know personally or were you informed by counsel, either separately or in, this declaration that certain of those coin-operated games used either a television monitor or television receiver with the radio frequency and intermediate frequency portions by-passed or disabled?

A. I know personally of it, but I do not know when it occurred. of that statement?

174 Q. And you do not know whether it occurred prior to the time you signed this declaration, is that accurate?

A. I believe so. invention and the content of the

175 Q. How about the next statement within the semi-colons from line 7 to line 10, that is, "That some of the claims of said letters patent, 3659285, include the

term 'standard television receiver', specifically, claims 1 and 2. Some of the claims of said letters patent 3659285 include the term 'television receiver', specifically, claims 5 and 6." Was that statement within your personal knowledge or did you rely on counsel for Sanders as to the truth of that statement?

A. I do not recall.

176 Q. With respect to the next statement within semi-colons, "That the claims which do not recite a 'television receiver' but rather recite 'cathode-ray tube,' specifically, claims 3, 4, 5, 7, 8, 9, 10, 11 and 12, are inadequate to fully protect our invention, because they are otherwise of different scope from the claims that recite a 'television receiver.'"

Did you have personal knowledge of that or did you rely on counsel for Sanders for the truth of that statement?

A. I believe I would have. I would have relied on counsel.

177 Q. With respect to the next statement, "That in the context of my invention and in the context of the description thereof in said letters patent 3659285 I have always understood and believed 'television receiver' and 'standard television receiver' to mean

any cathode ray tube display incorporating circuitry for a Raster-type scan inasmuch as such displays are common to both monitor and broadcast television receivers and are, therefore, both reliable and readily available at low cost, as evidenced by the fact that at least some of the coin-operated games incorporate entire broadcast receivers with the radio frequency and intermediate frequency sections disabled."

Did you have personal knowledge and belief there or did you rely on counsel for Sanders for any part or all of that statement?

A. I had personal belief, sir.

178 Q. At the time the application for patent No. 3659285, was filed in August of 1969, what did the terms 'television receiver' and 'standard television receiver' mean to you?

A. It would have been one and the same to me.

179 Q. Television receiver would have been the same as a standard television receiver?

A. Yes, sir. One, would have to include radio frequency. Did that mean to you a device capable of receiving broadcast television signals and displaying programs

on the screen of a television set?

A. It would have included that, yes.

181 Q. And would that also have included, then, radio frequency and intermediate frequency sections? This is as of the time the application was filed?

A. (By the reporter.) Could you read that back, please? (The last question was read back by the reporter.) (The last question was read back by the reporter.) MR. WELSH: Well, I think the question is objectionable as an attempt to mislead. MR. WILLIAMS: Excuse me. I object to the question. It is vague. It seems that the term that is used in that question and the preceding question have different references.

MR. WELSH: No, they do not have different references. We were discussing the terms "standard television receiver" and "television receiver" as of the time of filing of the application for the patent No. 3659285 in August of 1969. The question is: whether such receivers, in order to receive broadcast signals and display programs on their screens, would have or did include radio frequency sections and intermediate frequency sections. I restated the question, and I don't know if you are

objecting to this question; also. . .

MR. WILLIAMS: This is a new question which you are now phrasing? ~~repeating~~ . . .
statement beginning

MR. WELSH: Yes. . .

MR. WILLIAMS: Could you please repeat the question? in fact, cover again the question that was (The last question was read back by the reporter.) late firemen poring over the
and disclosure. . .

MR. WILLIAMS: Well, I think the question is objectionable as an attempt to mischaracterize the witness' prior testimony. 5 and 6.

Do you recall now MR. WELSH: You may answer the question for that statement at the time that you see the reissue of that THE WITNESS: Yes, sir.

A. I do not.

MR. WELSH: If you understand it.

Should it refresh you THE WITNESS: Yes, sir. those

182 Q. (By MR. Welsh.) The answer was yes, sir?

A. Yes, sir. so.

183 Q. Thank you, let's take a break. the question, please? Did you roll on (whereupon, at 3:10 o'clock, P.M.,
when the recess was taken.) the end of the last five lines on page 2 of the declaration, which contained the statement, "I believe the corrected at nos 1, 2,

AFTER RECESS 3:25 P. M.

184

Q. (By Mr. Welsh.) Referring to the portion of the statement beginning on the fifth line from the bottom on page 2, "That while I believe the enumerated claims 1 and 2, 5 and 6 do, in fact, cover games using television monitors or broadcast receivers with the radio and intermediate frequency portions by-passed or disabled --" did you rely on counsel for Sanders for that statement?

A. I need to look at claims 1 and 2, 5 and 6.

185

Q. Do you recall now whether you relied on counsel for Sanders for that statement at the time that you signed the reissue declaration in April, 1974?

A. I do not.

186

Q. Would it refresh your recollection to read those claims?

A. I believe so.

May I have the question, please?

187

Q. Did you rely on counsel for Sanders for that statement which I quoted from the first three of the last five lines on page 2 of the declaration, which contained the statement, "I believe the enumerated claims 1, 2,

5 and 6 do, in fact, cover games using television monitors and broadcast receivers with the radio and intermediate frequency portions by-passed or "disabled"? counsel?

A. I do not believe I relied on counsel.

188 Q. Have you had experience in reading patent claims?

A. Experience in and belief some manufacturers of

189 Q. Experience in reading patent claims. to the best of

A. I am not sure what is meant by experience in reading patent claims. cover do not include either a televis

190 Q. I will restate it. Have you had experience in interpreting patent claims to determine whether they cover specific devices? to frequency portions thereof.

A. I still do not understand the question. counsel

191 Q. Do you know what it means to state that a claim covers a specific device statement?

A. I am not sure relying on counsel.

192 Q. Did you at the time that you signed the declaration containing the statement, "I believe the enumerated claims above, including in fact, cover certain games at the specified" In did you at that time know what that meant to say patent claim covered non certain devices personal knowledge with respect to

A. I would have relied on counsel to explain to me how it did or why it did.

193 Q. So with respect to that statement you would have relied on counsel?

A. Yes, sir.

194 Q. With respect to the next portion of that statement, "On information and belief some manufacturers of coin-operated television games have taken the position that the terms 'standard television receiver' and 'television receiver' do not include either a television monitor or a television broadcast receiver intended to receive broadcast signals but with the radio frequency and intermediate frequency portions thereof by-passed or disabled," did you have personal knowledge or did you rely on counsel for Sanders with respect to that statement?

A. I would have relied on counsel.

195 Q. With regard to the next statement, "On information and belief said letters patent is rendered partly inoperative because of unlicensed manufacture of said certain games by said manufacturers under color of claims of non-infringement," did you rely upon counsel or did you have personal knowledge with respect to.

that statement? Then on counsel?

A. I would have relied on counsel.

196 Q. With respect to the next statement appearing on page 3, "That the inclusion of terms within claims of said letters patent 3659285, such as claims 2 and 6, which might form a basis for any party to take the position that those claims do not include television games using as a video display device either a television monitor or a television receiver intended to receive broadcast television signals but with the radio frequency and intermediate frequency portions thereof by-passed or disabled was through error and without any deceptive intention," did you rely on counsel for that statement?

A. May I have the question again, please?

197 Q. With respect to the portion I quoted, did you rely on counsel for that statement?

A. No, sir. I did not rely on counsel for that statement.

198 Q. You did not?

A. I don't believe so. I don't believe I relied on anyone.

199 Q. What did you rely on?

A. Sir?

200 Q. What did you rely on as the basis for the statement?

A. I would have relied on counsel to have brought it to my attention that it was not covered in the original patent.

201 Q. So you would have relied on counsel, at least in part, with respect to that statement?

A. In part.

202 Q. And what part would you not have relied on him for?

A. That it was obvious to me that the television monitor would not have to have had a radio frequency or intermediate frequency portion in order that we could play our game on it.

203 Q. Did you have anything to do with the selection of the terms to be used in the claims of patent No. 3659285, such as claims 2 and 6?

A. The terms?

204 Q. Yes, that says, the phrase stated with, "That the inclusion of terms within claims of said letters patent 3659285, such as claims 2 and 6 --" I'm speaking of the terms referred to there. Did you have anything to do with the selection of terms which were used within claims of that patent, such as claims 2 and 6?

209 A. Not that I recall.

210 A. respect

205 Q. So any statements with respect to what terms were included within this declaration you would have relied on counsel, is that correct?

211 A. Yes, sir.

206 Q. With regard to the last three lines of the first paragraph of page 3 which state "That the failure to include in said letters patent 3659285 claims in the form of claims 13-17 of this application was through error and without any deceptive intention," with respect to that statement did you rely on counsel for Sanders?

212 A. May I look at the claim 17, 13 through 17?

207 Q. Surely. They appear, I believe, in the listing of claims just preceding the declaration.

214 A. I do not know how to answer that question, because I don't believe I understand.

208 Q. Did you have anything to do with determining what claims were to be included in the reissue application?

209 A. Directly?

Q. Yes.

A. Not that I recall.

210 Q. Then any statement in here with respect to what claims were included, such as this one with respect

to that statement, you would have relied on counsel, would you not?

A. I still do not know if I understand.

211 Q. Did you determine what claims were to be included in the reissue application?

A. Not that I recall.

212 Q. Did you draft any of the claims that were to be included in the application?

A. No, sir.

213 Q. If you do not -- if you had nothing to do with determining which claims were to be included, then you would not have known whether it was -- whether the failure to include certain claims was without deceptive intention or was through error, would you?

A. No, sir.

214 Q. In that event, then, you must have relied on counsel
215 for the statement in the last three lines of the first paragraph on page 3.

MR. WILLIAMS: I believe that the last three lines of the first paragraph on page 3 relate to inclusion of claims in the letters patent.

MR. WELSH: In the application for the reissue.

MR. WILLIAMS: Perhaps we're referring to different statements. I think it says "In the failure to include in said letters patent 3652985."

MR. WELSH: You are correct.

215 Q. (By Mr. Welsh.) Did you have anything to do with determining which claims were included in the original patent?

A. No, sir.

216 Q. Then, again, with that in mind, did you not rely on counsel of Sanders with respect to the statement in
221 the last three lines of the first paragraph of page 3?

A. Yes, sir.

217 Q. Now, if you want to hand me that --

A. (Document handed to Mr. Welsh by
222 the witness.)

218 Q. (By Mr. Welsh.) Referring now to the development
220 work in the TV game project, I show you what has been
222 marked in Mr. Baer's deposition as Exhibits 9-51
through 9-63 and ask if you recognize that document
A. as having seen it or a copy of it previously?

(Documents handed to the witness
by Mr. Welsh.)

THE WITNESS: I don't recall which page. Is it the whole document?

219 Q. (By Mr. Welsh.) It's the whole document, yes.

220 A. May I have the question again, please?

(The last question was read back by the reporter.)

221 THE WITNESS: I recall having seen portions of it.

220 Q. (By Mr. Welsh.) Under what circumstances?

220 A. Sometime back, perhaps with Mr. Baer or with Mr. Rusch, especially the pictures on page 9-51 and 9-53.

221 Q. Do you recall whether it was just laying on someone's desk or was it handed to you by someone? How did you happen to see those pictures?

227 A. I do not recall.

222 Q. Was a copy of this laying around loose in the room where you worked?

228 A. I do not recall.

223 Q. Is that all you recall seeing about it: were the pictures on the pages 9-51 and 9-53?

229 A. The baseball on page 9-57, the baseball skill game

229 Q. appears familiar to me. I believe I would have been shown this by Mr. Rusch, as I recall. On page 9-59

the paragraph under heading 16, hares and hounds game is familiar, because I know we had a game similar to that.'

Q. But do you know whether your familiarity was from having seen it here or because there was such a game?

A. I do not recall.

Q. Do you recall when Mr. Rusch came to work on the TV project?

A. I do not recall.

Q. Do you recall whether it was at the same time that you went to work on it or was it afterward?

A. I do not know when he came on board the program, but I was not aware of it until after I came on the program.

Q. When he did come to work on the program was he

Q. spending full time on it in the same room as you were?

A. I do not recall.

Q. Was it shortly after you went to work on the program

A. that you became aware of his working on the program or

Q. was it sometime after that?

A. I don't recall, sir.

Q. Do you have any idea as to when you might have seen

A. this document, Exhibit 9-51 to 9-63?

130 A. No, sir.

(Document handed to Mr. Welsh by
the witness.)

230 Q. (By Mr. Welsh.) Returning now to the development
work which you did in the TV game project, I believe
you were discussing Exhibits 16-30 and 31 as well as
Exhibit 23-78 regarding obtaining a split field with
236 color present in the white area. What happened next
in the TV game development?

MR. WELSH: Off the record.)

237 (Discussion off the record.)

238 THE WITNESS: Apparently, the next
event that took place was to take the split field
control mechanism, make the first game called the
239 pumping contest out of it.

231 Q. (By Mr. Welsh.) Was that actually done?

A. Yes, sir.

232 Q. And where is that referred to in your notes?

A. Exhibit 16, page 32.

233 Q. Anywhere else?

241 A. Exhibit 23, page 26.

234 Q. What did the pumping game consist of?

A. Do you mean playing the game or --

235

Q. Yes, how did it appear to an observer?

A. There were two buttons under two wooden handles, as I recall, and one button would be integrating a capacitor positively to either move the split field up or down, and the other would be doing just the opposite. It was a race as to who could push the button the fastest.

236

Q. Is there an entry at the top of page 33 relating to that game? I refer to

A. Yes, sir, there is. It is an exhibit.

237

Q. Does that indicate that the game actually was played?

A. Yes, sir.

238

Q. Do you recall playing that game?

A. Yes, sir.

239

Q. Was that -- did you consider it a significant event

A. in the TV game development?

A. Yes, sir.

240

Q. Prior to this time had you done any work with respect to producing a movable dot?

A. Prior to this program?

241

Q. No, prior to the time that the pumping game was played on May 18, 1967, as indicated on page 33 of Exhibit 16.

I call your attention to Exhibits

246 Q. And did you succeed in that effort? That's dealt with, is it not, on page 27 of Exhibit 23?

251 A. I do not recall. I do not recall, but I believe I may have. Exhibit 23, page 27 indicates to me that I did.

247 Q. The entry on page 32 in the lower left corner indicates a date, 5-16-67, which is different from the 5-17-67 date of page 32. Also, that lower left entry appears to have a line drawn around it and contains the name R. H. Baer in parentheses. Did you make that entry, first of all?

252 A. That is my writing.

248 Q. Was that idea expressed there yours?

253 A. No, sir.

254 Q. Where did you get the idea?

255 A. It would have been Mr. Baer.

256 Q. Do you recall how he transmitted that idea to you?

257 A. I do not recall.

258 Q. Referring to pages 24, 25, 26, 27 and 28, were those ideas yours?

259 A. No, sir.

260 Q. Whose ideas were those?

261 A. Mr. Baer's.

253 Q. How do you know that?

A. From his signature, and I am sure that he had me log these in this book.

254 Q. You recall that they were not your ideas?

A. I'm sure they were not my ideas.

255 Q. I don't understand, so I'll ask the question again. How are you sure they were not your ideas?

A. I have no recollection of thinking up these games, and my name is not signed to it.

256 Q. Did Mr. Baer sign other pages where your name was signed to it?

A. Yes, sir.

257 Q. Does the fact that your name appears indicate that the idea on those other pages were yours?

A. The ideas were mine?

258 Q. Yes, you said that the idea that were depicted on pages 34 through 38 of Exhibit 16 were not yours,

A. and you were sure they were not because your name did not appear on those pages along with Mr. Baer's name, is that correct?

A. That is correct.

259 Q. My question now is: on the pages where your name does appear, even though Mr. Baer's name is on there,

does that appearance of your name signify that the ideas on that page were yours?

MR. WILLIAMS: Well, I object to the question. It calls for a conclusion as to many pages of this notebook. I think it would be different as to different pages.

MR. WELSH: Well, he was very sure that when his name did not appear that the ideas were not his. I am simply asking that where his name does appear, does that signify that they were your ideas?

265 THE WITNESS: No, sir.

266 Q. (By Mr. Welsh.) Is there any significance to the appearance of your name on any of those pages?

267 A. That I had entered the data on that page and had signed the page.

268 Q. Did you not make the entries on pages 34 through 38?

269 A. Yes, sir.

270 Q. Do I understand correctly, then, that whether or not your name appears, it is not related to whether or not you made the entries?

271 A. The pages which have entries that signify ^{my} ~~file~~ work or design data that I did bear my signatures. If I had just copied some data from a piece of ^{thinking} paper that

belonged to Mr. Baer, I did not sign those pages.

263 Q. That was true, was it not, of the information placed on the first eight pages of that notebook, Exhibit 16?

264 A. That is true, sir.

265 Q. I show you now Exhibit 9-64 to 9-68 and ask if you recognize those?

266 (Documents handed to the witness by Mr. Welsh.)

267 THE WITNESS: I've seen these before.

268 Q. (By Mr. Welsh.) Were those the source of the information which you placed on Exhibit 34 to 38?

269 A. Yes, sir.

270 Q. Would you now tell us what happened next in your work with respect to the TV game project?

271 A. Exhibit 23, page 28 indicates that I was at least thinking on paper about a color-catching contest.

272 Q. Apparently, that's as much as I did on it.

273 Q. Was this something that you thought of yourself or something that was suggested to you?

274 A. I do not recall.

275 Q. Would you go on?

276 A. Exhibit 23, page 29 is, apparently, more thinking

27 on paper about the color-catching contest. I do not
recall it at this time, but the next event to take
place was the work on the car ride, race.

269 Q. Where do you find the entries related to that?

A. Exhibit 16, page 39, page 40 and 41, and Exhibit 23,
page 30, 32.

270 Q. ^{9/25/76} ^{Did} _{10/26/76} Do you actually construct circuitry for playing a
car race game?

A. Exhibit 16, page 41 indicates the circuit has been
tested and performs as intended.

271 Q. What was the intent with respect to how that car race
272 game appeared to an observer?

A. I'd have to study it further to remember.

272 Q. You have no recollection?

273 A. That a waving picture either would be in some vertical
motion slowly to indicate a road that was curvy
passing over the screen.

273 Q. Was there any image of a car?

A. I do not recall, sir.

274 Q. What happened next in your work in the TV game project?

275 A. I do not recall. However, on Exhibit 16, page 41 it
indicates that I made a circuit that would change
color after a predetermined time period.

275. Q. You say 16-41 indicates that you made this. Do you believe that you made such a circuit?

280. A. Yes, sir.

276. Q. What was the purpose of making that circuit?

A. The purpose was to have a split field screen change color after a predetermined time.

277. Q. Now, is that the same kind of split field you were describing earlier where you saw one color, which was over the white portion, and then the other part was black?

A. That is correct, sir.

278. Q. Now, you had already had provision for changing color manually, did you not?

A. Yes, sir.

279. Q. This, then, was an automatic change of color after a certain time?

A. That is correct, sir.

280. Q. Why did you want to do that?

A. Does that question relate to the time that I did this or now, looking back and knowing?

281. Q. Well, now, if you can recall by looking back, why was it being done at the time, if you recall?

A. For a future game.

282 Q. What game was that?

A. Firefighter.

283 Q. How did the automatic change in color relate to the future firefighter game? That is, the game in the future after this?

A. As I recall, we had a picture of a house with windows and, perhaps, door. I forget exactly what it looked like. And we had a blue field displayed or -- I take that back. A blank field displayed, and as you pumped, a blue field would appear, and the idea was, as I recall, to get the blue field up past the highest window or door opening before it flashed red.

284 Q. Is that game set forth in the right side of page 35 of Exhibit 16?

A. Yes, sir, it is.

285 Q. What happened next in your work on the TV game project?

A. I do not recall. However, Exhibit 16, page 42 indicates that Mr. Baer requested that I build additional horizontal and vertical delay multivibrators to enable two operators via individual sets of controls to move about the C.R.T. screen two independent color squares or rectangles which are variable in size.

286 Q. Had you prior to that time built any circuitry for

generating squares as distinguished from a line or a split screen?

A. Not that I recall.

287 Q. Did you or did Mr. Baer say why he desired circuitry for two operators to move two independent colored squares?

A. I do not recall it at this time, but I'm sure he did.

288 Q. Might it have been for playing some other game than the ones that he had already noted to you?

A. I'm sure it was.

MR. WELSH: I see it is 5:00 o'clock. Let's break for the day. We said 9:30, didn't we, for tomorrow morning?

MR. WILLIAMS: I don't know, but that's fine with me.

MR. WELSH: Back on the record. I don't think we have any place Mr. Williams noted our understanding that we had over the telephone with respect to scheduling Mr. Seligman and Mr. Etlinger, and I just wanted to be clear on the record. As I understand it, you have agreed, due to scheduling problems of Mr. Etlinger, Mr. Anderson, making it difficult to schedule the depositions of Mr. Seligman

and Mr. Etlinger prior to April 1, that you agree that we may take those after April 1 even though that is the day of the discovery cut-off. I believe the week of the 5th of April.

MR. WILLIAMS: That's right. Part of the problem is, of course, not only the scheduling of Mr. Etlinger and Mr. Anderson, but also an attempt to arrive at a suitable time was made prior to last week, I believe, and it turns out that we do have a problem this week and the next week, and we have agreed that we can take those two depositions after the 1st of April.

MR. WELSH: O. K.

William L. Horner
Deponent

THE STATE OF New Hampshire
COUNTY OF Henniker) SS.

Subscribed and sworn to before me this 13th
day of May, 1976.

Marilyn E. Trapalis
Notary Public
My Commission Expires March 19, 1980

Marilyn E. Trapalis
Justice of the Peace and/or
Notary Public